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<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/620,687	KATO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Gregg Cantelmo	1745	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-7.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date ____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date <u>7/17/03</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                              | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input type="checkbox"/> Other ____.   |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The information disclosure statement filed July 17, 2003 has been placed in the application file and the information referred to therein has been considered as to the merits.

### ***Drawings***

3. The drawings received July 17, 2003 are acceptable for examination purposes.

### ***Allowable Subject Matter***

4. Claims 1-7 are allowed.

The following is an examiner's statement of reasons for allowance: none of the prior art of record appears to teach, fairly suggest or render obvious the invention of claim 1. In particular of the specific mixture of artificial graphite and spherical graphite particles.

JP 2001-236950 discloses a negative electrode mixture comprising mixtures of massive black lead and fishskin and mesophase pellet carbon powder. However the prior art fails to teach or sufficiently suggest all of the claimed dimensions and claimed properties of the artificial graphite particles and spherical graphite particles.

JP 07-153486 discloses a negative electrode mixture comprising both artificial graphite and spherical graphite. However this reference is silent with respect to the

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properties and dimensions recited in the instant claims. The disclosure of JP 07-153486 lacks sufficient specificity to suggest that the processes of manufacturing the mixture of JP 07-153486 is identical or sufficiently identical to that of the instant application. Therefore all the claimed properties and dimensions cannot be reasonably said to be inherent to the mixture of JP 07-153486.

JP 05-290844 discloses using a mixture of natural and artificial graphite in the negative electrode of a lithium battery but fails to teach or sufficiently suggest all of the claimed dimensions and properties recited in claim 1. As in the case of JP 07-153486, the disclosure of JP 05-290844 lacks sufficient specificity to suggest that the processes of manufacturing the mixture of JP 05-290844 is identical or sufficiently identical to that of the instant application. Therefore all the claimed properties and dimensions cannot be reasonably said to be inherent to the mixture of JP 05-290844.

U.S. Patent No. 6,660,434 discloses a negative electrode material comprising a mix of synthetic graphite and one or more other graphite materials. JP 2000-251890 discloses a negative electrode material comprising a mix of natural and artificial graphite. In each of U.S. Patent No. 6,660,434 and JP 2000-251890, neither reference teaches or sufficiently suggests the particular claimed graphite mixture of claim 1.

While at least some of the remaining prior art of record teach some of the claimed dimensions and properties, no reasonable combination of the prior art of record can be found to sufficiently render the instant claims obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 5,700,298 discloses a carbon anode and shows BET values for various carbon materials in Table I. U.S. Patent No. 6,344,296 discloses using one type of graphite particle in the negative electrode of a lithium secondary battery. U.S. Patent No. 6,403,259 discloses using one type of graphite particle in the negative electrode of a lithium secondary battery. U.S. Patent No. 6,576,369 discloses using a particular artificial graphite material in the negative electrode of a lithium battery.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregg Cantelmo whose telephone number is (571) 272-1283. The examiner can normally be reached on Monday to Thursday from 9 a.m. to 6 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. FAXES received after 4 p.m. will not be processed until the following business day. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

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more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregg Cantelmo  
Primary Examiner  
Art Unit 1745

gc 

January 4, 2006